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## (54) Expandable well screen

(57) An expandable well screen (36) provides increased collapse, torsional and tensile strength. In an embodiment, the expandable well screen (36) includes a generally tubular base pipe (38) and an external filtering media (40). The well screen (36) is configured to have sufficient torsional and tensile strength for conveyance and positioning in a wellbore, while also having sufficient strength to prevent collapse when the screen (38) is radially expanded.

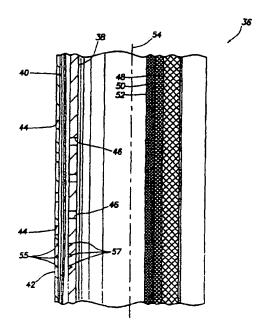


FIG.2



## **EUROPEAN SEARCH REPORT**

EP 01 30 4042

| X<br>X   | Citation of document with of relevant part of relevant pa | LLER MONTGOM<br>-07-30)<br>9-32 *<br>LL CANADA LTI<br>998-11-05)<br>35 *<br>NTER CORNELIS | ERY K ET AI  |   |                                     |
|--|--|---|--|---|-------------------------------------|
| X  | 21 May 1999 (1999- * claim 1 * * figures 6,7 *  US 3 099 318 A (MI 30 July 1963 (1963 * column 7, line 2 * figures 1-4 *  WO 98 49423 A (SHE RESEARCH (NL)) 5 November 1998 (1 * page 4, line 28- * figures 3,4 *  US 5 901 789 A (KE AL) 11 May 1999 (1   | 05-21)  LLER MONTGOM -07-30) 9-32 *  LL CANADA LTI 998-11-05) 35 *  NTER CORNELIS         | );SHELL IN   | 1,9<br>IT 7   |                                     |
| <b>(</b>                                       | 30 July 1963 (1963<br>* column 7, line 2<br>* figures 1-4 *<br>WO 98 49423 A (SHE<br>RESEARCH (NL))<br>5 November 1998 (1<br>* page 4, line 28-<br>* figures 3,4 *<br>US 5 901 789 A (KE<br>AL) 11 May 1999 (1   | -07-30) 9-32 *  LL CANADA LTI 998-11-05) 35 *  NTER CORNELI: 999-05-11)                   | );SHELL IN   | 7<br>1,3,5,   | •                                   |
| 1  | RESEARCH (NL)) 5 November 1998 (1 * page 4, line 28- * figures 3,4 * US 5 901 789 A (KE AL) 11 May 1999 (1   | 998-11-05) 35 * NTER CORNELI: 999-05-11)  |  | 1,3,5,  |                                     |
| ] (  | AL) 11 May 1999 (1   | 9 <del>99-</del> 05-11)   | JAN ET   |   |                                     |
| -  |  |   |  |   |                                     |
|  |  |   |  | -   | TECHNICAL FIELDS                    |
|  |  |   |  |   | E21B                                |
|  |  |   |  |   |                                     |
|  | The present search report has  |   | d claims   |   |                                     |
|  | Place of season  [HE HAGUE   | 19 An   | ril 2002   | 50  | chouten, A                          |
| X: partiex<br>Y: partiex<br>docum<br>A: techno | TEGORY OF CITED DOCUMENTS<br>study relevant it taken clone<br>durity relevant it combined with and<br>lent of the same category<br>stogical background<br>writen disclosure  |   | T - theory or princ<br>E - sariar patent<br>after the filing<br>D : document clie<br>L : cocument clie | aple underlying the<br>document, but pu<br>date<br>of in the applicable<br>d for other reason | no swention<br>¿Stanad on, or<br>on |

## ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 01 30 4042

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

19-04-2002

|    | Patent docume<br>cited in search re |   | Publication date            |  | Patent family member(s)  | Publication<br>date  |
|----|-------------------------------------|---|-----------------------------|--|--|--|
| FR | 2771133                             | A | 21-05-1999                  | FR<br>AU<br>WO   | 2771133 A1<br>1159199 A<br>9925951 A1  | 21-05-1999<br>07-06-1999<br>27-05-1999   |
| US | 3099318                             | A | 30-07-1963                  | NONE   |  | 27-03-1333   |
| WO | 9849423                             | A | 05-11-1998                  | AU<br>AU<br>BR<br>WO<br>EP<br>NO                         | 717503 B2<br>7651798 A<br>9809005 A<br>9849423 A1<br>0980462 A1<br>995248 A  | 30-03-2000<br>24-11-1998<br>08-08-2000<br>05-11-1998<br>23-02-2000<br>27-10-1999   |
| US | 5901789                             |   | 11 <b>-</b> 05 <b>-1999</b> | AU<br>BR<br>DE<br>EA<br>WO<br>EP<br>JP<br>NO<br>NZ<br>US | 710745 B2<br>7568096 A<br>9611456 A<br>69617258 D1<br>980433 A1<br>9717524 A2<br>0859902 A2<br>11514712 T<br>982087 A<br>322015 A<br>6012522 A | 30-09-1999<br>29-05-1997<br>17-02-1999<br>03-01-2002<br>29-10-1998<br>15-05-1997<br>26-08-1998<br>14-12-1999<br>07-07-1998<br>28-10-1999<br>11-01-2000 |
|    |                                     |   |                             |  |  |  |
|    |                                     |   |                             |  |  |  |

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

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